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CS-01-049

March 22, 2005

To: Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Attn: Art Unit 2829 - David A. Zarneke

George O. Saile, Reg. No. 19,572

28 Davis Avenue

Poughkeepsie, N. Y., 12603

Subject: | Serial No.: 10/692,028 10/23/03 |

Beichao Zhang et al.

VIA ELECTROMIGRATION IMPROVEMENT BY  
CHANGING THE VIA BOTTOM GEOMETRIC  
PROFILE

| \_ Art Group: 2829 David A. Zarneke \_ |

RESPONSE TO RESTRICTION REQUIREMENT

This is in response to the Restriction or Election  
Requirement in the Office Action dated 02/28/05. In that  
Office Action, restriction was required to one of two stated

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being  
deposited with the United States Postal Service as first class  
mail in an envelope addressed to: Commissioner for Patents,  
P.O. Box 1450, Alexandria, VA 22313-1450, on March 24, 2005.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

 3/24/05

Inventions under 35 U.S.C. 121. The Inventions stated are Group I - Claims 1-31 to a process, classified in Class 438, subclass 636 and Group II - Claims 32-54 to products, classified in Class 257, subclass 767.

Applicant provisionally elects to be examined the Invention described by the Examiner as Group I - Claims 1-31 drawn to a process classified in Class 438, subclass 636. This election is made with traverse of the requirement under 37 C.F.R.1.143 for the reasons given in the following paragraphs.

The Examiner is respectfully requested to reconsider the Requirement for Restriction given in the Office Action. The Examiner gives the reason for the distinctness of the two inventions as (1) that the process as claimed can be used to make other and materially different products or (2) that the product as claimed can be made by another and materially different process (MPEP 806.05(f)). However, upon reading the product Claims against the process Claims one can readily see that the product Claims are directed to "a semiconductor device" and the process Claims are directed to "a method for manufacturing a via in a metal interconnect structure", it is necessary to obtain claims in both the product and method claim language. The method Claims necessarily use the product and vice versa. The field of search must necessarily cover both the method class/subclass 438/636 and products class

257/767 in addition to other related Classes and subclasses to provide a complete and adequate search. The fields of search for the Group I and Group II inventions are clearly and necessarily co-extensive. The Examiner's suggestion that "In the instant case, the product as claimed can be made by another and materially different process. For example, the via in a dielectric could be formed using methods other than coating and patterning a photoresist onto the dielectric, such as depositing a photoresist column in the position that the via is to be located, depositing the dielectric and then remove the photoresist leaving behind the via", is very speculative and really has nothing to do with the Claims as presented in this Patent Application. Further, it is respectfully suggested that these reasons are insufficient to place the additional cost of a second Patent Application upon the Applicants. Therefore, it is respectfully requested that the Examiner withdraw this restriction requirement for these reasons.

Withdrawal of the Restriction Requirement and the Allowance of the present Patent Application is requested.

Sincerely,

A handwritten signature in black ink, appearing to read 'SBA', with a long horizontal flourish extending to the right.

Stephen B. Ackerman, Reg.# 37761